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Generation of a Child: That isto say , when within the Womb, as much as they were here, upon the *Ovary*. So that it is not, I conceive, reasonably to be doubted, but that the *Membranes*, which we call the *Secundine* or *After-Birth*, are the *Individual* ones, which belong to that *Vesicle* or *Egg* which falls from the *Ovary* into the Womb: Being therein, with their contained Humor, naturally augmented and amplified, as here they were preternaturally, in this Hydropical Case.

Microscopical Observations of the Structure of Teeth and other Bones: Made and Communicated, in a Letter by Mr. Anthony Leeuwenhoeck.

I Have some time since applied a Glafs, (esteemed by several Gentlemen, who had try'd it, a very good one) to observe the Structure of the Teeth, and other Bones. Which both to them and my self also, then seemed to consist of *Globules*. But since then, having drawn out one of my Teeth, and for further Observation, applied better Glasses than the former; the same Gentlemen, with my self, agreed, from what we plainly saw, That the whole Tooth was made up of very small strait and transparent Pipes. Six or seven hundred of these Pipes put together, I judg exceed not the thickness of one Hair of a Mans Beard. In the Teeth of a Cow, the same Pipes appear somewhat bigger, and in those of a Haddock somewhat less.

Fig. 1.

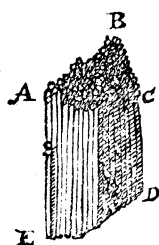


Fig. 2.

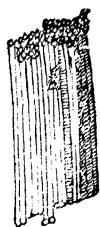


Fig. 1. *A. B. C. D. E.* is a Square piece of a Bone, whereto, although you apply a good *Microscope*, yet at the end *A. B. C.* it will seem as if compos'd of *Globules*. Nor will the Pipes distinctly appear on the sides *A. C. D. E.* by reason of the thickness of the Bone, and thereby the trajection of less light.

Fig. 2. Is a flat piece of a Bone, in which the aforesaid Pipes may be seen.

I have also observed part of the Shin-Bone of a Calf six or eight weeks old. In which the said Pipes are less strait than in a Tooth. And sometimes there seem'd to be several lesser

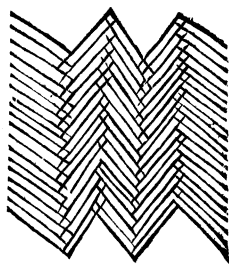
Pipes

Pipes joyned together, so as to constitute one greater. Yet these Pipes were very full, which hindred my better observation of them. And I am apt to think, that there was one sort of Pipes different from the former, which are continued from the Centre of the bone, towards the circumference, as the Insertions do in the Wood of a Plant. But I doubt whether I shall be able hereafter more distinctly to discover these last said Pipes, because I cannot handle the Bone after my own pleasure.

Fig. 3.

Of The Grain of Ivory.

THE Author of these Transactions hath often taken notice of the Grain of *Ivory*; and is that which, upon a due position to the falling light, is visible to a naked Eye. The several pieces whereof it is composed, appearing like the *Fibres* or *Threads* of a *Muscle*, running in parcels, *decussatim*, and under and over one another reciprocally; and so making up one Piece of Platted Work: as in Fig. 3 is in some part represented. And as hereafter, & in another place may further be shew'n.



Microscopical Observations of the Structure of Hair: Made also and Communicated by the abovesaid Mr. Anthony Leeuwenhoeck.

I Have formerly examined the Structure of Hair; and so much as I thought I saw my self, shewed to certain learned Gentlemen; who then all agreed with me, that it consisted wholly of *Globules*. As did also to my thinking the Hoof of an Elk. But not being satisfied, without further inquiry; I took the Hair of my Beard, after it had been shaved the first, second, third, and fourth days, and observed, That the little particles which we saw through the common *Microscopes* (which yet were very good) and which appeared round, were indeed irregular, and lay very closely pressed one upon another. Of these particles consist the outer parts, or *Cuticle* (or, as the Author calls them, *Glods*) of the Hair. One of these Hairs I met with, which seemed rare, being on the one side convex, on the